

### REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-8, 10, 12-20, 22, 24 and 26 are presently active in this case, Claim 10 amended by way of the present amendment.

In the outstanding Office Action, Claim 10 was objected to for an informality; Claims 1-4, 6-8, 10, 13-20, 22, 24 and 26 are rejected under 35 U.S.C. § 102(e) as being anticipated by Immonen et al. (U.S.P. 7,010,305); Claim 5 is rejected under 35 U.S.C. §103(a) as being unpatentable over Immonen et al. and further in view of Rinne (U.S. Publication No. 2005/0185651); and Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Immonen et al.

First, Applicants wish to thank Examiner Murphy for the March 11, 2009 telephone discussion at which time Applicants presented arguments substantially as indicated in this response. While no agreement was reached, Examiner Murphy indicated that she understands the claim distinctions presented, but cannot agree to allowance of the case until full consideration is given to a formally filed response.

Applicants first note that the present response makes no substantive amendments to the claims and the remarks below provide a clear explanation of the distinctions of the claimed invention over the cited references. While Applicants believe that these remarks should result in allowance of the claims in their present form, Applicants respectfully request that the Examiner contact the undersigned Attorney of Record, Ed Garlepp, at 703-412-5920, to discuss any amendments to the claims that the Examiner may deem necessary to clarify the distinctions discussed below and place this case in condition for allowance. Alternatively, Applicants respectfully request that any forthcoming Office Action or Advisory Action

address each of the distinctions detailed below in order to fully develop these issues so that suitability of an Appeal in this case can be determined.

With regard to the claim objection, Claim 10 is amended herein to correct the informality noted in the Office Action.

Turning now to the merits, Claim 1 recites a base station including a packet classification unit configured to classify packets received/transmitted from/to a plurality of mobile stations into a quantitative guarantee type packet having a request value that indicates quantitative value for communication quality or a relative guarantee type packet not having the request value that indicates quantitative value for communication quality. Also recited is a quantitative guarantee type buffer configured to store the quantitative guarantee type packet, and a relative guarantee type buffer configured to store the relative guarantee type packet. A transmission order controller is configured to control a transmission order of the packets for every classified quantitative guarantee type packet in the quantitative guarantee type buffer and every classified relative guarantee type packet in the relative guarantee type buffer. Further, a radio resource assignment unit is configured to assign radio resources to the quantitative guarantee type packet in the quantitative guarantee type buffer and the relative guarantee type packet in the relative guarantee type buffer, according to the transmission order controlled by the transmission order controller. If radio resources still remain after assignment to the quantitative guarantee type packet in the quantitative guarantee type buffer, the radio resource assignment unit assigns remaining radio resources to the relative guarantee type packet in the relative guarantee type buffer.

The primary cited reference to Immonen et al. discloses a method for assigning values of service attributes to transmissions between a radio access network and user equipment. As discussed in the response filed September 12, 2008, Immonen et al. discloses performing the packet scheduling according to the determined QoS class which corresponds to the each real-

time packet and the non-real-time packet, but does not disclose “classifying packets into a quantitative guarantee type packet having a request value that indicates quantitative value for communication quality or a relative guarantee type packet not having the request value that indicates quantitative value for communication quality” and “controlling a transmission order of the packets for every classified quantitative guarantee type packet in the quantitative guarantee type buffer and every classified relative guarantee type packet in the relative guarantee type buffer,” as recited in Claims 1, and 14-15.

The Response to Arguments portion of the Office Action indicates that col. 8, lines 35-43 and col. 13, lines 15-18 of Immonen et al. disclose the relative guarantee type packet not having a quantitative value for communication quality. However, these portions of Immonen et al. merely disclose that the SGSN of the cellular network provides default QoS profiles for equipment that otherwise does not provide a QoS value. That is, the SGSN of Immonen et al. actually ensures that *all* packets communicated by the Immonen et al. system have a QoS value. Thus, Immonen et al. discloses providing communication transmission based only on QoS classes, which provides a quantitative value for communication quality for all packets.

In particular, according to col. 8, lines 35-43 of Immonen et al., cited in the Office Action, the QoS profile 14 is used if specific required values of QoS attributes are not indicated. Here, the QoS profile 14 includes: the delivery order, the maximum SDU size, the SDU error ration, the BER of the erroneous SDU, and the allocation/retention priority. Further, according to col. 8, lines 47-66 also cited in the Office Action, the QoS profile 15 is used. Here, the QoS profile 15 includes: the maximum bit rate, the delivery order, the maximum SDU size, the SDU format information, the SDU error ratio, the BER of the erroneous SDU, the allocation/retention priority, the transfer delay and the guaranteed bit rate. Thus, Immomnen et al. merely discloses the feature that the attributes indicated by the

user equipment is obtained from the QoS profile 15 and the attributes not indicated by the user equipment is obtained from the QoS profile 14.

As also noted in the previous response, Col. 9, lines 37-47 of Immonen et al. describes the use of real time and non-real time profiles as a default profile to select values of attributes to be used for activating a connection. Further, the attributes indicated by the connection request is obtained from the QoS profile 15, and the residual attributes not indicated by the connection request is obtained from the QoS profile 15, and the residual attributes not indicated by the connection request is obtained from the QoS profile 14.

Contrary to assertions in the Office Action, this cited portion of Immonen et al. does not disclose assignment of radio resources still remaining after assignment to the quantitative guarantee type packet, as recited in the independent claims. Immonen et al. is simply not intended to utilize remaining radio resources effectively after guaranteeing radio resources that satisfy the request value of the quantitative guarantee type packet, as described in Applicants' specification.

Therefore, Immonen et al. also does not disclose or suggest the feature "if radio resources still remain after assignment to the quantitative guarantee type packet in the quantitative guarantee type buffer, assigning remaining radio resources to the relative guarantee type packet in the relative guarantee type buffer," as also recited in Claims 1, 14 and 15. This provides an additional distinction of these claims over Immonen et al.

The secondary reference to Rinne is cited solely for teaching of the dependent Claim 5, and does not correct the deficiencies of Immonen et al. noted above.

For the reasons discussed above, independent Claims 1, 14 and 15 patentably define over the cited references. As Claims 2-8, 10, 12-13, 16-20, 22, 24 and 26 depend from one of the independent claims noted above, these dependent claims also patentably define over the cited references. Further, the cited references do not disclose that if radio resources still

remain after assignment to the relative guarantee type packets, the further remaining radio resources are assigned to the quantitative guarantee type packets further remaining in the quantitative guarantee type buffer, as recited in dependent Claims 22, 24 and 25. Thus, these claims are patentable over the cited references even assuming that the rejection of the independent claims is maintained.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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